

REMARKS

Applicants have amended claims 1, 4-20, 22-24, and 26 as set forth above. No new matter has been added by way of these amendments. In view of the above amendments and the following remarks, reconsideration of the outstanding office action is respectfully requested.

The Office has rejected claims 1, 4-20, 22 and 23 under 35 U.S.C. 112, second paragraph asserting claim 1 cites “providing a pressure equalizing port” in the last line, however this renders a method step within an apparatus claim. The Office asserts this claim is therefore indefinite as the scope of the claim cannot be entirely ascertained (i.e. whether apparatus or method). Accordingly, Applicants have amended claim 1 as set forth above to address the Office’s objection. In view of the foregoing amendments and remarks, the Office is respectfully requested to reconsider and withdraw this objection.

The Office has rejected claims 1, 4-9, 13 and 15-18 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 3,032,037 Huber (Huber). However, Huber does not disclose “a milking system comprising one or more teat cups and a vacuum source providing a pulsating vacuum in the teat cups, and an apparatus for collecting a small volume of a liquid for cold storage, the apparatus comprising: . . . a port configured to maintain the pulsating vacuum within the housing from said vacuum source . . . a space between the collar and inlet conduit within the housing when the collar is retained inside the housing about the inlet conduit by the retaining system to provide transfer of the vacuum from the housing to the inlet conduit via said space” as now recited in claim 1.

Huber is specifically directed to the extraction and storage of blood and has a hypodermic tubular needle (28), which is projected into a blood vessel. In particular, Huber discloses a chamber (20) contains an expandable balloon type receptacle (10) which is caused to expand by virtue of a vacuum within the chamber. Additionally, in Huber blood is thereby drawn into the balloon by its expansion and the vacuum is not applied to the inlet of blood into the balloon receptacle. However, there simply is no mention or suggestion of elements of a milking system as recited in the claims, such as teat cups or a vacuum source providing a pulsating vacuum in the teat cups.

Additionally, Huber also only teaches and suggests a **constant low vacuum**. By way of example, the Office's attention is directed to column 3 line 63 - 65 of which states:

"It is of significance that in the present operation a constant low vacuum, of from 2 to 4 inches only is employed . . ." [emphasis added]

A *constant vacuum* clearly is not a vacuum source configured to provide a *pulsating vacuum* in the teat cups, as now actively recited in the amended claims set forth above. Furthermore, in Huber blood is drawn into the balloon by its expansion and the *constant vacuum* is not applied to the inlet of blood into the balloon receptacle. In sharp contrast, the claimed port configured to maintain the pulsating vacuum to avoiding clogging during milking operations.

Further, in Huber, there is no space created between the collar 10x and the needle 29 when the needle 29 is inserted. Instead, as disclosed at col. 2, lines 26-27 in Huber, "...the other end being equipped with a similar needle that is projected through the pierceable stopper of the bottle." This type of connection between a needle and a pierceable stopper in Huber provides a seal between the outside of the needle and the pierceable stopper when the needle is inserted. As a result, Huber neither teaches nor suggests the claimed space between the collar and inlet conduit, let alone a space that provides transfer of the vacuum from the housing to an inlet conduit via this space.

Accordingly, in view of the foregoing amendments and remarks, it is respectfully submitted that claim 1 stands clearly novel over Huber. Moreover, for the same reasons as provided above, it is submitted that claim 1 also stands clearly non-obvious over Huber and the Office is respectfully requested to reconsider and withdraw the rejection of claim 1. Since claims 4-9, 13 and 15-18 depend from and contain the limitations of claim 1, they are distinguishable over the cited reference and patentable in the same manner as claim 1.

The Office also has rejected claims 1, 5, 6, 10-12, 14, 17, 19, 23 and 24 under 35 U.S.C. 103(a) as being unpatentable over reference WO 1996/008441 Todd et al. (Todd) in view of Huber, claims 20-22 under 35 U.S.C. 103(a) as being unpatentable over Todd in

view of Huber and further in view of U.S. Patent No. 3,242,903 Karnath et al. (Karnath), and claims 24-26 under 35 U.S.C. 103(a) as being unpatentable over Todd in view of Huber and further in view of U.S. Patent No. 6,440,100 Prentiss (Prentiss).

Todd, Huber, Karnath, and Prentiss, alone or in combination, do not teach or disclose or suggest, “a lay flat flexible bag comprising a collar defining an opening; . . . a retaining system that retains the collar of the flexible bag about the inlet conduit so that the bag receives liquid from the inlet opening; and a transfer system that transfers the vacuum from the port for providing a vacuum within the housing to the inlet conduit when the collar of the flexible bag is retained about the inlet conduit by the retaining system” as now recited in claim 1 or “retaining the collar of the flexible bag inside the housing about the inlet conduit so that the lay flat flexible bag receives liquid from the inlet opening; and providing at least one of a) a space between the collar and inlet conduit within the housing and b) a pressure equalizing port in the inlet conduit, to transfer the pulsating vacuum from the port via the space to the inlet conduit when the collar of the flexible bag is retained about the inlet conduit by the retaining system within the housing” as recited in claim 24.

The Office has acknowledged that Todd does not disclose a lay flat bag. Todd only illustrates and discloses in FIGS. 1 and 3 plastic jerry can 50 and plastic jerry can 200. Todd states that on page 4, lines 10-11 that the second container may be formed from a non-rigid shaped plastic container, but still makes no mention or suggestion of a lay flat flexible bag as claimed.

The Office asserts “Huber discloses a bodily fluid collection system using a lay flat bag (as variously seen but best depicted in Fig 8).” However, Todd could **not** use a lay flat container because its principle operation requires the container to stand on the base of first container and present its opening for collection of colostrum (see page 6 lines 3 to 5 of Todd). A lay flat bag could not be used in the Todd because it would collapse and not allow collection of fluid.

Similarly, Karnath does not teach or suggest the lay flat bad as claimed. Instead Karnath teaches a rigid container 20 as clearly illustrated in FIG. 1 in Karnath.

Prentiss also does not teach a lay flat flexible bag, but rather teaches a reservoir rigid enough so as to retain its shape when a vacuum is applied, or made of a resilient material having strong shape memory so that the reservoir itself may be used as a squeeze pump. By way of example, the Office's attention is directed to column 4, lines 29-41 of Prentiss which states:

"Reservoir 10 may be molded of a resilient material such as a thermoset elastomer having strong shape memory so that the reservoir itself may be used as a squeeze pump when fitted with an exhaust valve. An external vacuum source 30 is used in the figured embodiment, requiring reservoir 10 to be sufficiently rigid to retain its shape when a vacuum is applied via vacuum line 34. In this case, reservoir 10 may be injection molded of a more rigid polymer such as reinforced polypropylene, suitable for freezing and milk storage. Schematic vacuum source 30 may be an electric pump, manual pump or suction means capable of developing a constant or pulsating negative pressure of at least minus 50 mm Hg/in2, these sources being well know to persons versed in the art."(emphasis added)

Further, Prentiss does not teach the provision of a vacuum transfer means which provides transfer of the vacuum via a space between the collar and inlet conduit, nor a pressure equalizing port in the inlet conduit.

In sharp contrast, as discussed on page 11, lines 29-30 of the present application, "The flexible bag (1) is preferably a lay flat bag which when filled with liquid and placed on a flat surface is less than 15 cm thick, preferably 10cm thick." Accordingly, the use of the lay flat flexible bag assists in the formation of the sample collection pocket described and illustrated with reference to FIGS. 4 and 7. The lay flat bag also allows a range of volumes to be accommodated and air space expelled to avoid spoilage. Further, as colostrum is stored frozen the lay flat bag system allows more controlled freezing and thawing as well as providing sampling without disrupting the bulk of the frozen material.

In view of the foregoing amendments and remarks, the Office is respectfully requested to reconsider and withdraw the rejection of claims 1 and 24. Since claims 5, 6, 10-12, 14, 17, 19, 20, 22, 23, and 26 depend from and contain the limitations of claim 1 and claim 25 depends from and contains the limitations of claim 24, they are distinguishable over the cited reference and patentable in the same manner as claims 1 and 24.

In view of all of the foregoing, Applicants submit that this case is in condition for allowance and such allowance is earnestly solicited.

Respectfully submitted,

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